



Grants Mineral Belt Fact Sheet

New Mexico

January 2010

This Fact Sheet will tell you about:

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Background information

The Grants Mineral Belt in New Mexico extends along the southern margin of the San Juan Basin within Cibola, McKinley, Sandoval, and Bernalillo counties as well as on Tribal lands. The Grants Mineral Belt was the primary area for uranium extraction and production activities in New Mexico from the 1950's until late in the 20th century.

Historical uranium mining impacts within the Shiprock Mining District and part of the Ambrosia Lake sub-district of the Grants Mining District are under the jurisdiction of the Navajo Nation and are being addressed by U.S. Environmental Protection Agency (EPA) Region 9. The remainder of the Ambrosia Lake sub-district, as well as the Laguna, and Marquez sub districts contain legacy uranium sites that are under the jurisdiction of EPA Region 6 and the State of New Mexico.

Current activities

On October 20, 2009, EPA Region 6 sponsored a community meeting in Grants, New Mexico to kick off public participation to assist EPA, the New Mexico Environment Department (NMED), and their Tribal, federal, state and local partners in planning for interagency activities to address the environmental legacy from uranium mining and milling. This interaction was the first in a series of planned collaborative activities wherein the communities can provide input to long-range planning activities for the Grants Mineral Belt Five-Year Plan, which sets forth the goals, objectives, and tasks to assess

health risks and environmental impacts that may have resulted from legacy uranium mining and milling extraction, processing, and waste disposal. NMED, EPA, Tribal and other partners will interface with the community as we move forward with this wide-ranging effort.

Meeting questions and answers

A number of questions asked by the meeting participants were related to the Homestake Mining Company (uranium mill) Superfund Site. Although the Homestake Site is within the San Mateo Creek Basin, those questions have been referred to the Homestake Mining Company Site Remedial Project Manager to address in a separate document.

Below are responses to questions from the October 2009 community meeting related to the Grants Mineral Belt 5 Year Plan initiative:

1. What structures in the area will be evaluated?

In coordination with the affected communities and residents, EPA will assess structures on land likely to be contaminated with radiation from uranium waste rock and/or debris. Based on data gathered from aerial over flights, this effort will focus on the areas of San Mateo, Poison Canyon, Spanish Land Grant and Laguna Pueblo. Impacted structures could include homes, barns, sheds, fences and free standing shelters that may have been built with uranium waste or waste rock from uranium mining or milling sites, which could pose a health risk to current or future occupants.

2. Why is the partnership addressing small, dry mines first?

Site assessments of mines within Poison Canyon were conducted to understand whether these mines may contribute to ground water contamination observed up-

gradient of the nearby Homestake Mining Company Superfund Site. In 2009, NMED completed site screenings at 27 mines that were the closest up-gradient mines to the Homestake Mining Company Superfund Site. This work was conducted as follow-up to the 2008 Preliminary Assessment conducted by NMED that evaluated 85 legacy uranium sites in the San Mateo Creek Basin. Additionally, NMED also has conducted a Preliminary Reassessment and Site Investigation of the Anaconda Company Bluewater uranium mill site, which is also up gradient of the Homestake Mining Company Superfund Site. NMED has requested that the U.S. Department of Energy evaluate the source of elevated contaminant concentrations in the Alluvial and San Andres aquifers possibly attributable to this site.

3. Will there be an aquifer study throughout the Grants Mineral Belt?

The EPA, working with NMED and other partners, began a sampling effort in 2009 to determine impacts to private wells in the San Mateo Basin. Results from this sampling will be shared and discussed with NMED, residents, and public health officials to determine appropriate future actions. Additional work may be conducted to fill in any data gaps that may be identified.

4. a. What work has been done by the Department of Health to evaluate human exposure to uranium contamination?

b. What were the concentrations of uranium found by the Department of Health that caused concern?

a.) The New Mexico Department of Health's Environmental Health Epidemiology Bureau has been actively involved in investigating New Mexicans' exposure to uranium. Here are some examples:

From 2002-2008, New Mexico was a member of the 6-state Rocky Mountain Biomonitoring Consortium, which was funded by the Centers for Disease Control and Prevention to address environmental health problems in Arizona, Colorado, Montana, New Mexico, Utah, and Wyoming. These states share common environmental characteristics and have extensive histories of mining, especially for uranium and federal military operations. The goal in part was to assess the extent of human exposure to environmental contaminants through testing of drinking water and urine. For New Mexico, the primary focus was arsenic, which was known to occur naturally at elevated levels along the Rio Grande Rift Valley. The study invited volunteers to have their drinking water and urine tested for a variety of metals and other chemicals. Because this biomonitoring project was based on volunteers, there was not representation from every

potentially impacted county. It is also important to note that areas with naturally higher ground water arsenic levels were preferentially selected for this biomonitoring project. However, regions with the highest uranium deposits, such as McKinley or Cibola counties were not included because they were not identified as having high levels of arsenic.

In New Mexico, approximately 850 volunteer participants had their drinking water and urine tested for a number of chemicals, including uranium. With respect to uranium, the 90th percentile exposure among New Mexicans was higher than the 90th percentile for the nation, according to the National Health and Nutrition Examination Survey, 2001-2002).

From October 2007 to June 2008, urine and water samples were collected as part of New Mexico state general fund-supported efforts to assess veterans' exposure to uranium, and more specifically, depleted uranium. Specific information and monitoring results are available at <http://nmhealth.org/eheb/documents/Bio/DUSummary6.9.09.pdf>.

b.) Through working with the Rocky Mountain Biomonitoring Consortium, the New Mexico Department of Health staff learned that levels of uranium in some New Mexicans' drinking water supplies and urine exceeded average levels in a national study that is representative of the US population. All New Mexico participants whose uranium drinking water concentrations exceeded the EPA maximum contaminant level (MCL) of 30 micrograms per liter were contacted and advised to utilize reverse osmosis filtration or to drink bottled water in order to avoid this exposure.

In addition, the New Mexico Department of Health also conducted an evaluation of veterans' exposure to depleted uranium. A summary of the depleted uranium project is available at <http://nmhealth.org/eheb/documents/Bio/DUSummary6.9.09.pdf>

All results of the biomonitoring project's participants are being analyzed to evaluate exposure to uranium and other metals. A final summary report from this study will be available by the end of December 2009. No results from individual participants will be identified.

5. Are comprehensive health studies planned for the Grants Mineral Belt?

At this time, the New Mexico Department of Health has no funds to conduct comprehensive health studies. However,

if funds become available the Department of Health will conduct water and/or urine sampling and analysis for uranium in the Grants Mineral Belt region. Specifically, Department of Health would identify areas in New Mexico with elevated levels of naturally occurring uranium due to uranium mineralization and then prioritize areas for testing. Individuals in these areas would be invited to have their drinking water and urine sampled for total uranium levels. They would collaborate with other agencies on these efforts to ensure that they are not duplicating efforts.

It has been reported that by the end of the year, Indian Health Service will begin medical monitoring clinics across the Navajo Nation to screen individuals for non-job-related exposure to uranium. Dr. Douglas Peter, chief medical officer and deputy director for the Navajo Area Indian Health Service, said Indian Health Service was charged with conducting the study as part of a five-year plan to address uranium contamination on the Navajo Nation.

6. Can the key contacts' information for EPA, NMED, Mining & Minerals Division, Department of Energy, Nuclear Regulatory Commission, Health Dept, Agency for Toxic Substances and Disease Registry, Bureau of Indian Affairs, Bureau of Land Management, Department of the Interior and their web site link(s) be made available to the community?

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7. Why wasn't the Bluewater Valley Downstream Alliance informed about the aerial radiological survey before the October 20, meeting?

The aerial over-flight of populated areas that may have structures impacted by legacy uranium site wastes was conducted by the EPA National Decontamination Team (NDT) who operates and maintains the fixed-wing aircraft and the instruments utilized to collect data. As the operator of the aircraft, the EPA NDT and their contract pilots have an established protocol with the Federal Aviation Administration (FAA) regarding notification of low-level flights in public airspace. All notifications procedures established under the EPA NDT protocol were met prior to the commencement of the aerial over-flights. In addition, the survey was specifically for populated areas that have structures built from mine wastes. If any future overflights are planned, EPA will ensure that the

affected population, including the Bluewater Valley Downstream Alliance, are alerted to the activity.

8. Did the aerial radiological survey extend to San Mateo Creek?

The aerial radiological survey did not extend to the geographical area directly north of the Homestake Mining Company Superfund Site. The survey was specifically conducted over populated areas that may have structures built from mine and/or mill waste.

9. Can part of the Five-Year Plan include evaluations for radon and plant uptakes?

Radon evaluation and plant uptake studies may be considered for future sampling events. Plant uptake studies are more commonly considered during the extensive site characterization studies associated with human health or ecological risk assessments and may not be included in the preliminary site evaluation stages.

10. Why were residents of the Grants Mineral Belt excluded from the uranium exposure study conducted by the Department of Health?

Please see response to question number 4.

11. Can EPA/partners locate funding for new health studies, i.e. bio-monitoring?

EPA will continue to work with the state and federal health agencies to identify future studies and potential funding sources.

12. Did industry funding for (the New Mexico Energy, Minerals, and Natural Resources Department) Mining and Minerals Division studies cause any “heartburn” for the Agency? Could industry participation be a conflict of interest?

Since the Mining and Minerals Division (MMD) directed the contract, we did not have concerns about the industry funding. MMD drafted the scope of the contract, approved the contractor and oversaw the fieldwork and report preparation.

13. Will the Five-Year Plan going to consider the potential impacts of new mining on legacy sites?

The response to this question involves agencies’ policy decisions. We will provide an update on this issue in the future.

14. Can the Bluewater Valley Downstream Alliance receive copies of the presentation shown at the October meeting?

Copies of the PowerPoint® presentation, along with a list of meeting participants were provided electronically to all requestors several days after the October meeting.

15. Why didn’t EPA provide the community enough advance notice about the October meeting?

EPA mailed the meeting invitations on October 6, 2009, providing the community approximately a two-week notice. Meeting invitations notification were also placed in four local newspapers several weeks before the meeting. Over a number of years working with diverse communities, we have found that notices sent too far in advance of community meetings (more than several weeks) tend not to work as well as notifications providing an approximate two-weeks notice. We also provided a number of e-mail notifications to different agencies’ electronic mailing lists. In the future, we will endeavor to provide the Grants Mineral Belt community meeting notices in advance of the normal two-weeks.

16. Why doesn’t EPA communicate their expectations better? The October meeting invitation did not mention the Five-Year Plan, but participants were asked to provide input?

We believed that the language in the invitation, “We are asking community members to assist us in gathering information and providing input on planning activities related to the coordinated efforts to assess and address environmental impacts resulting from legacy mining and milling activities. EPA, NMED and their partners are seeking community input as we move forward in this comprehensive effort.” did adequately inform the community of how we hoped they would participate in the meeting. EPA will increase and enhance our efforts to clarify community expectations in all future communications.

17. Is EPA complying with “Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations?”

EPA is complying with the Order. In April, June and August of 2009, EPA began communications and meetings related to the New Mexico legacy uranium issues with the Multicultural Alliance for a Safe Environment (MACE), the Southwest Network for Economic and Environmental Justice (SNEEJ), the Indigenous Environmental Network, the Bluewater Valley Downstream Alliance and other

organizations concerned with issues of environmental justice. The October 2009 meeting was the first in a series of large community meetings to open up the collaboration process to the wider community.

18. What is Superfund?

Superfund is the Federal Government's program to clean up the Nation's uncontrolled hazardous waste sites. The EPA Superfund cleanup process begins with site discovery or notification to the EPA of possible releases of hazardous substances. Sites are discovered by various parties, including citizens, State agencies and by Region 6 staff. Once discovered, we enter the site into our computerized inventory of potential hazardous substance release sites which is named the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). We then evaluate the potential for a release of hazardous substances from the site through multiple iterative steps in the Superfund process.

19. Why aren't the Bluewater Valley Downstream Alliance, the Multicultural Alliance for a Safe Environment and the Haaku Water Office part of the partnership?

The initial focus of the Grants Mineral Belt Partnership was to share information with State, Federal and Tribal agencies who have currently, or had historically, conducted work in the area to share information and resources. EPA hosted a meeting last spring with over 60 representatives from 19 federal, state, and Tribal organizations to better understand how each organization is involved. It was decided that a multi-agency plan or a "Five Year Plan" could serve as a planning tool for each of the organizations to align their work and to achieve greater benefits.

In addition to its own funding mechanisms, each of the organizations has its own mission and rules to identify and plan future work. Community groups provide a valuable resource to each organization's planning process. EPA and NMED consider Bluewater Valley Downstream Alliance, the Multicultural Alliance for a Safe Environment and Tribes as valuable partners and will work directly with them to ensure that community input is reflected in the planning and implementation of the Five-Year Plan.

What happens next?

In the next several months, federal, state, Tribal and local partners will participate in a series of meetings to discuss activities, planning and future directions for the Grants

Mineral Belt Five-Year Plan. NMED, EPA and our other partners plan to present the first draft of the Five-Year Plan at a public meeting in spring 2010.

In follow-up to an aerial radiological survey that EPA completed in October 2009, the EPA will be conducting residential structural assessments in Cibola and McKinley Counties, New Mexico over the next several months. The aerial survey covered approximately 300 square miles which included the towns of Toltec, Bluewater, Milan, Grants, San Rafael, San Mateo, Bibo, Seboyeta, Moquino, the villages within the Laguna Pueblo and the Lobo Canyon sub-divisions. The areas of interest for further structural assessments are San Mateo, Bibo, Seboyeta, and Moquino. Other tribal villages may be addressed depending on requests from the tribes.

The structural assessments will assist EPA in determining the impact of former uranium mining and milling on residential properties. EPA will be requesting additional information and/or property access from homeowners in areas of elevated radiological activity as defined by the aerial assessment. EPA will begin contacting the potentially- effected residents for additional information and/or property access in December 2009.

Where to get more information

All media contact should be made to the Region 6 Office of External Affairs at 214.665.2200.

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On the web:

http://www.epa.gov/earth1r6/6sf/newmexico/grants/nm_grants_index.html